DaimlerChrysler AG

Patent claims

1. A device (1) for severing a hollow profile (2), shaped according to the internal high pressure forming process, transversely to its longitudinal extent (3), comprising an encircling cutting edge (4) which is arranged in or at an encircling recess (5) which is formed in an inner wall (6) of the device (1), characterized

- in that sealing elements (7) are provided on the inner wall (6),
- at least one sealing element (7) being arranged in each case on both sides of and parallel to the cutting edge (4).

2. The device as claimed in claim 1, characterized in that the encircling recess (5) is of wedge-shaped design in profile.

3. The device as claimed in claim 1 or 2, characterized in that the recess (5) is configured in such a way that it expands the hollow profile (2) in the region of the recess (5) during the severing.

4. The device as claimed in one of claims 1 to 3, characterized in that the cutting edge (4) is formed at the transition (8) between inner wall (6) and recess (5).

5. The device as claimed in claim 1, characterized

- in that the cutting edge (4) is designed as an interchangeable parting blade (9), or
- in that the cutting edge (4) forms an integral part

(10) of the inner wall (6).

6. The device as claimed in one of claims 1 to 5, characterized in that the sealing element (7) is formed from plastic, in particular an elastomer.

7. The device as claimed in one of claims 1 to 6, characterized in that the inner wall (6) has at least one receptacle (11), into which the sealing element (7) is inserted.

8. The device as claimed in one of claims 1 to 7, characterized in that the sealing elements (7) conceal the cutting edge (4) and do not release the latter until during deformation.

9. The device as claimed in one of claims 1 to 8, characterized in that the sealing elements (7) are arranged on both sides of the recess (5).

10. The device as claimed in one of claims 1 to 9, characterized in that the device (1) is dimensioned in such a way that the hollow profile (2) is severed at a calibrating pressure at which a hollow profile blank bears completely against the inner wall (6).